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Docket No. 030712-20  
Serial No. 10/735,720  
Page 3IN THE CLAIMS:

Please cancel claims 1-33 in their entirety without prejudice nor disclaimer of the subject matter set forth therein.

Please add new claims 34 and 35 as follows.

1.-33. (Canceled)

34. (New) A variable gain amplifier comprising a differential input amplifier including first and second transistors that constitute a differential pair, and a constant current circuit that operates as an absorption current circuit for the first and second transistors constituting the differential pair, and a variable impedance which is connected between sources of the respective transistors of said differential input amplifier, wherein the constant current circuit includes a first constant current circuit and a second constant current circuit, said first and second transistors constituting said differential pair have their gates respectively connected to first and second differential inputs, have their drains respectively connected to ends of first and second load resistances being respectively connected to a supply voltage at their other end and have their source respectively connected to the first and second constant current circuits, third and forth transistors with drain-source paths of the third and fourth transistors which serve as said variable impedance are connected with the source of said respective first and second transistors and a gain control voltage is connected to gates of the third and fourth transistors via first and second gate resistances respectively, whereby a gain of said differential input amplifier is variably controlled by controlling a value of said variable impedance.

35. (New) A variable gain amplifier according to claim 34, further comprising a resistance which determines a minimum gain of said differential input amplifier, and which is connected between said sources of said first and second transistors.

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